REMARKS

Claims 1, 3-12, 14, 16-32 are pending. Claims 30-32 are newly added. No new matter has been added. Support can be found, for example, on page 42 of the specification.

The Examiner has used Ninomiya et al. (2003/0008942) as a reference under various 35 U.S.C. § 103 obviousness rejections. Ninomiya qualifies as a 35 U.S.C. 102(e) reference. Effective November 29, 1999, subject matter which was prior art under former 35 U.S.C. §103 via 35 U.S.C. §102(e) is now disqualified as prior art against the claimed invention if that subject matter and the claimed invention, "were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person" (see MPEP Section 706.02(l)(1)). A statement of an attorney of record can be sufficient evidence to establish common ownership (see MPEP Section 706.02(l)(2)). As established by the enclosed Statement of Common Ownership, at the time the invention of the current application was made, the inventions of the current application and Ninomiya were owned by, or subject to an obligation of assignment to Konica Corporation, a Japanese Corporation. Since the Applicants have established common ownership, Ninomiya is disqualified as prior art under 35 U.S.C. §103(a) and should be removed as a basis for rejection under 35 U.S.C. §103(a).

Applicants respectfully submit that Sakai's disclosure of the particle diameter is too broad. Paragraph [0059], page 4, of the reference recites that particle size is "preferably 500 nm or smaller, more preferably 200 nm or smaller". Applicants respectfully submit that the reference fails to teach an upper cap of 50 nm as claimed. The upper limits taught are grossly over the upper limit that has been claimed.

The diameter "more preferably 200 nm or smaller" is a very general and broad disclosure and certainly does not suggest smaller diameter such as at most 50 nm. Sakai discloses five particle dispersions in its Examples, as shown in TABLE 1 at page 9, the minimum being 135 nm and the maximum 173 nm. These are the realized diameters of "more preferably 200 nm or smaller," that is far from the claimed value "at most 50 nm." The diameter is different by 2.7 times or more. Applicants submit that one having

ordinary skill in the art would not envisage an upper limit of about 3 times smaller that what has been disclosed by the reference.

The primary reference Sakai does not teach or suggest the "oil soluble dye" as the Examiner set forth in the first full paragraph on page 3 of the Office Action. The Examiner refers to col. 7, lines 55-63 of Takada to show "the equivalence and interchangeability of using oil-soluble dye with using pigment". The Applicants respectfully disagree. This may be true for Takada's ink but it is clearly incorrect for Sakai's ink. The oil-soluble dye and pigment are both insoluble in water. However, oil-soluble dye is soluble in oil, but pigment is not. The Examiner refers to Example 5 of Sakai. This Example cannot be applied to an oil-soluble dye, since DMF solvent dissolves the dye and dispersion is not formed. This Example is meaningful when the colorant is pigment as stated in Sakai as a whole.

Sakai's discloses two embodiments of ink containing colored particles ([0035] or later and [0060] or later). Since the disclosure contains certain ambiguity, the Applicants would like to refer to Sakai's working Examples. The Applicants understand the invention disclosed in the reference is not determined by the Examples; however, examples usually teach the essence of the invention. The Examples 1 and 5 correspond to two embodiments. Examiner refers to Example 5 to reject claim 29. The Applicants respectfully disagree since the step is fundamentally different, regardless the solubility of a colorant. Steps of claim 29 as amended are:

dissolving a polymer and a dye in an organic solvent,
adding a reactive emulsifier thereto,
emulsifying the dye dissolved in the polymer in water, then
adding a monomer, and
polymerizing the monomer with the polymer.

Sakai's Example 5 is

dissolving a polymer in an organic solvent, and dispersing a pigment,
adding methanol to aggregate the dispersion,
adding monomers, and dispersed, then
adding a reactive emulsifier thereto, then

polymerizing, and emulsifying in water.

In claim 29, dissolved dye in a polymer is emulsified with reactive emulsifier, and after that monomer is added. The steps are different or reversed. Please refer to the paragraph of pages 12 of the present application. Applicants direct the Examiner's attention to the function of "reaction proceeds smoothly without inhibition of the monomer polymerization, and no remaining monomer" or advantage of "minimize staining on the water-repellent layer on the inner walls of the ink jet head and nozzle section."

CONCLUSION

Applicant believes all the claims are in condition for allowance. Removal of the rejections is respectfully requested. Should the Examiner have any questions, the Examiner is invited to call the undersigned attorney of record.

Respectfully submitted,

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